Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

as Hume's chapter on 'Knowledge' in the Treatise, Kant's 'Transcendental Analytik' and Hegel's 'Logic.' All classifications of the sciences presuppose certain assumptions as to the relations of the categories, similar in general character to those there formulated. And inquiries along those lines must be made before the classification of the sciences can hope to get beyond the empirical stage in which, as Karl Pearson so clearly recognizes, it at present lies.

PERCY HUGHES.

COLUMBIA UNIVERSITY.

The Content and Validity of the Causal Law. BENNO ERDMANN. *Philosophical Review,* March and May, 1905. Pp. 136–165, 290–307.

Professor Erdmann's article on the 'Content and Validity of Causal Law' in the March and May numbers of the *Philosophical Review* is an attempt to find a basis for the methodology of the sciences of fact, through an examination of the notion of causality. Modern discussions of course presuppose the synthetic character of the causal relation, as opposed to the rational analytic conception of the older 'concept' philosophy. A start then may be taken from the tradition that the uniformity of the sequence of events is a necessary presupposition of the relation between cause and effect, a uniformity given as an element of our experience. But in this there is much more involved than the sensory contents of experience. Uniformity of sequence lies not in the immediately given, but arises through the fact that in the course of repeated perceptions we apprehend through abstraction the uniformities of their temporal relation. It involves, namely, reproductive elements, and that too of uniformities of qualitative content as well as of sequence. Again, there is involved in revival the further element of recognition—an awareness of the essential identity of the present revived content with that of the previous perceptions. Finally, to relate the contents of two ideas means a process in which attention is directed to the elements of the mental content, and which leads us to identify them with one another or differentiate one from another; and this is an act of thinking, not a sensation.

But while uniformity is a *necessary* presupposition, is it also an *adequate* one? Strict empiricism must, of course, discard entirely the added terms 'invariable' and 'unconditional' which even Mill recognizes as essential. Causality can only have a problematic validity. Further, both scientific and popular thought has always regarded the relation as one, not of mere sequence, but of dynamic dependence. For this also no place is left, in terms either of will or of force. The legitimate outcome is to give up the word cause altogether, as representing nothing whatever distinctive. If, therefore, we are not to deny the causal relationship instead of explaining it, it follows that there must be contained in it, besides the elements of reproductive recognition and those of identification and discrimination, which are involved in the abstract comprehension of uniform sequence, an additional element of thought. The writer's thesis is this: Wherever two events *a* and *b* are known to follow one another uniformly and immediately, there we must require with formal necessity that some element in the preceding *a* be thought of as fundamental, which will determine sufficiently *b*'s appearance or make that appearance necessary. For it is strictly impossible to think or even to imagine a chaos or absolutely irregular alternation of events, and this has, therefore, no possible meaning. Every act of reproductive recognition and attention which is involved in perception is possible only when uniformities exist. Thus the mental image of a chaos could be formed only through an extended process of ideation, which itself presupposes as active in it all that must be denied through the very nature of the image.

The necessary relation of cause and effect is thus not an empirical component of possible perception. It is a postulate of our thought grounded upon the uniformity in the sequence of events. At the same time it is not *a priori* in the rationalistic sense; it is not independent of the perceptive elements in the presupposition involved in the uniformity of sequence. The connection between each definite cause and effect is an empirically synthetic one and has as its warrant merely experience. Further, any induction is an hypothesis simply. It is hypothetical, first, because it depends upon the presupposition that the same causes will be given in the reality not yet observed as in that already observed. This expectation is warranted by no necessity of thought, not even by that involved in the relation of cause and effect; for this relation begins for future experience only when the presupposition that the same causes will be found in it is assumed as fulfilled. And, second, in the causal postulate absolutely nothing is contained regarding *what* the efficacy in the causes is, and *how* this efficacy arises.

The concept of force thus still remains indispensable, not, however, as given either in kinesthetic sensations or in the consciousness of volition, nor again as the hypostatized abstraction of the old concept philosophy, but as the imperceivable relations of dependence already present in every content of sense perception. In introducing it, moreover, we have in mind that every possible interpretation of nature possesses a dynamic character. Epistemologically the outcome is a universal phenomenological dynamism.

Two queries suggest themselves: (1) Is the absolutely relationless chaos which the argument uses the only alternative to a necessity that holds for all experience? It may be granted that without some uniformity experience would not exist. But it needs to be shown more clearly that we might not have enough uniformity to meet the psychological demands of perception, without its being necessary that each uniformity so revealed be absolute. And (2) do not the terms 'dependence,' 'dynamism,' 'efficacy,' require, to give them an intelligible meaning, a more concrete psychological content than is afforded by the bare category of thought that Erdmann postulates?

A. K. ROGERS.

BUTLER COLLEGE.